

THE PERCEPTION OF CAUVERY DELTA FARMERS TOWARDS CREDIT, CULTIVATION AND MARKETING RISKS IN PADDY FARMING

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ABSTRACT

The Cauvery delta region which is called as the rice bowl of Tamil Nadu is off late exposed to various risks. These risks associated with paddy cultivation were categorised as credit, cultivation and marketing (CCM) risks. The study location chosen for the study was Thanjavur, Thiruvarur and Nagapattinam Districts with a sample size of 239 respondents. CCM risks were ranked based on the farmers' response. Further farmers' response on perception statements for each risks were analysed and the respondents were categorised into low, medium high based on cumulative frequency.

KEYWORDS: Cauvery Delta, Paddy Cultivation & Credit, Cultivation and Marketing (CCM)

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INTRODUCTION

The Cauvery Delta Agro Climatic Zone (CDZ) lies in the eastern part of Tamil Nadu. Thanjavur, Thiruvarur and Nagapattinam districts comprises of 57 per cent of CDZ (TNAU Agri tech portal). Paddy is the major crop cultivated here and this erstwhile Thanjavur district later trifurcated into Thanjavur, Thiruvarur and Nagapattinam is termed as Rice bowl of Tamil Nadu. Rice being the staple food of tamilnadu and as cultivation of paddy is a labour intensive operation, this is intertwined in the economic and social fabric of rural Tamil Nadu.

However the farmers who are engaged in paddy farming are exposed to several risks right from sourcing funds for initiating the sowing to the selling of the harvested produce. Sendilkumar (2009) has explained the term 'risk' as the chance of loss or a possibility of loss or uncertainty or the dispersion of actual from expected results or the probability of any outcomes different from the one expected. In this instant study the risks are categorised into three prime heads viz., Credit, Cultivation and Marketing and the farmers' perception under each category were analysed.

METHODOLOGY

Among the districts in Cauvery delta zone, Thanjavur, Thiruvarur and Nagapattinam comprises of maximum area and hence was purposively selected. The list of blocks in three the selected districts were arranged in descending order based on the paddy area cultivated. The block in each district having maximum paddy cultivation was selected. In the same way first two maximum paddy cultivated villages were selected from each block. The list of farmers who possess rich experience in paddy cultivation from each selected village was obtained from the block

level Assistant Director of Agriculture's office. Out of the total population 25 percent was decided to be chosen as sample size for this study. Thus the total respondents for the study was 239 and the research design adopted was *Ex post facto* research design.

Perception of farmers towards CCM risks was selected as an independent variable for the study and was operationalized as the farmer's understanding towards the risks associated with credit, cultivation and marketing in rice farming. Risks faced by farmers during rice farming were identified after elaborate discussion with the scientists in Tamil Nadu Agricultural University (TNAU), commercial and cooperative bank officials and progressive farmers in the study area. These risks were categorised as credit, cultivation and marketing risks and they are ranked based on farmers' perception. The results obtained are listed in Table 1.

Table 1: Credit, Cultivation and Marketing Risks Identified in Paddy Cultivation

Risk Category	Risk	Rank
Credit risks	Inadequate institutional credit	III
	High interest rate charged by money lenders	I
	Procedural difficulties in sourcing credit	II
Cultivation risks	Erratic / Unseasonal rainfall	I
	Drought	II
	Accumulation of silt in canals	III
	Pests & diseases	VII
	High input costs	VI
	Decreased soil fertility	VIII
	Unavailability of organic manures	IX
	Non availability of timely labour	IV
	Absence of farm implements	V
	Lack of knowledge on weather updates	X
Marketing risks	Absence of storage facilities	I
	Issues in Direct Procurement Centre (DPC)	II
	Invasion of middle men to pull down the market price	III
	Less demand for harvested produce owing to production glut	IV

Analysis of Table 1 shows the types of risks faced by respondents during sourcing credit at the time of cultivation and marketing of paddy. Under credit risks, high interest rate charged by money lenders were ranked as highest risk followed by procedural difficulties faced by paddy growers while sourcing institutional credit. Cultivation risks were divided into ten and the major risks associated with paddy cultivation were erratic or unseasonal rainfall, drought and accumulation of silt in the canal which indirectly led to the wastage of irrigation water. This is in line with the finding of Kabir et. al (2019) "farmers saw the shortage of irrigation water in the dry season and uncertain weather patterns as the major sources of production risk. The main source of market risk was the fluctuation in farm-gate demand and prices for dry-season cash crops".

Marketing risk caused mainly due to absence of storage facilities after harvest of produce which forces the farmer to sell the produce immediately, irrespective of market price which may further lead to lesser profit margin. Even though DPCs are provided to solve the marketing risks, there is inadequate storage, manpower shortage and because of manpower shortage there is a delay in the procurement of the produce. Hence farmers resort to the commission agent involving middle men for immediate sale of the produce.

Further to study the perception of the respondents on the above mentioned risks an exhaustive list of different perception statements were framed on the credit, cultivation and marketing risks. These statements were constructed based

on consultation with the scientists of KVK Needamangalam, Rice Research Institute, Aduthurai, extension workers of State Agriculture Department of the study location. The final list of statements are mentioned in Table 2.

Table 2: Perception Statements for Credit, Cultivation and Marketing Risks

Sl. No	Statements
I	Credit Risks
1	Availing institutional credit is more difficult than borrowing money from money lender
2	Interest rate is higher while availing credit from commercial banks than cooperative banks
3	There is a fluctuation of interest rate while borrowing
4	Inadequate institutional credit forces to seek other sources of capital for crop cultivation
5	Crop insurance claims are available to protect credit at times of crop failure
6	Loan waiver is certainly needed at times of severe crop loss due to climatic factors
7	There is a delay in credit disbursement while availing crop loans from banks
8	Inability to timely repayment is due to high cost of cultivation
9	Inability to timely repayment is due to lack of sufficient production
10	Dilution of agricultural credit to other activities results in prolonged indebtedness
II	Cultivation Risks
1	Major risks for farming is due to erratic rainfall
2	High cost of external irrigation sources makes it not available for farming
3	Most often crop failure is due to failure of bore wells
4	Pest and disease outbreak possess a serious risk for farm productivity
5	Input costs of in organic farming escalates the cost of cultivation
6	Soil fertility has decreased over prolonged years of farming
7	Unavailability of manures and biological prevents from organic cultivation
8	Organic cultivation yields lesser than chemical based agriculture
9	Organic cultivation fetches more price than chemical based agriculture
10	Lack of enterprise diversification takes a toll on practicing organic cultivation
11	Non availability of timely labour affects routine farm operations
12	Labour shortage due to MNREGS is a major hurdle to carry out agriculture operations
13	Non availability of skilled agricultural labourers hampers farm activities
14	High cost of latest farm implements results in resorting to manual labour
15	Lack of knowledge regarding latest varieties and management practices lowers my farming potential
16	Inability to harness latest electronic farm communication vide internet possess a great difficulty for me to adopt timely management practices
17	Inadequate extension services hampers my progression in farming
III	Marketing Risks
1	Poor market demand of paddy is the cause for my poor income
2	Production glut due to synchronised operations is the cause for low price
3	Absence of storage facilities forces to do a distress sale
4	Local markets settle payments quicker than government agencies
5	Populist measure of free rice in PDS has hampered the demand for paddy in local market
6	Invasion of middlemen pulls down the actual eligible market price for the produce

The scoring pattern followed for studying this variable which is indicated below.

Agree	3
Undecided	2
Disagree	1

The total score for an individual respondent on perception was summed up and perception index was developed by adopting the following formula.

$$\text{Perception index} = \frac{\text{Total perception score obtained by a respondent}}{\text{Maximum possible score}} \times 100$$

(Maximum possible score = 99)

Percentage analysis was done to understand the item wise perception of the respondents. Finally, the respondents were categorised into low, medium and high based on their overall level of perception by employing the cumulative frequency method.

RESULTS AND DISCUSSIONS

The categorisation of respondents based on their perception on credit, cultivation and marketing risks faced by them in paddy cultivation is presented in Table 3.

Table 3: Categorisation of Respondents based on Perception

Category	Districts						Total	
	Thiruvarur		Thanjavur		Nagapattinam			
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Low	11	13.41	5	5.88	10	13.89	26	10.88
Medium	54	65.85	63	74.12	54	75.00	171	71.55
High	17	20.73	17	20.00	8	11.11	42	17.57
Total	82	100.00	85	100.00	72	100.00	239	100.00

It is evident from the table that majority (71.55 per cent) of the respondents had a medium level of perception. The probable reason could be that as farming is the main occupation of the respondents they are frequently exposed to the risks listed in Table 1. Farmers mostly resort to borrowing from institutionalised sources like commercial banks and primary agricultural cooperative societies (PACS). As the crop loans are to be mandatorily covered under Govt. of India's Crop insurance scheme, farmers have a perception that crop insurance is essential to safe guard at times of economic loss due to crop failure. Most of the farmers have disagreed to the statement that availing institutional credit is more difficult than borrowing money from money lender. This implies the success of penetration of more number of rural lending branches of nationalised banks and vide presence of PACS. Nearly half of the respondents has disagreed for diluting agricultural credit to other activities.

Majority of the respondents perceived that soil fertility has decreased over prolonged years of farming. This is further reflected in the overwhelming response for the statement unavailability of manures prevents taking up organic cultivation. This in turn is inter twined with the lack of enterprise diversification eg, decreased cattle population may be the cause for reduction of farm yard manure availability. Most of the respondents did not agree with the statement that populist measure of free rice in PDS has hampered the demand for paddy in the local market. Few farmers opined that they use PDS rice for home consumption and sell he harvested paddy.

CONCLUSIONS

Perception is the key component of any issue. Once the farmers have a thorough idea of what kind of risks are happening around them, they would be able to develop a strategy to avoid or adjust those risks. Hence the outcome of this perception study on CCM risks can be made utilised by the policy planners and the line departments like public works department and agriculture marketing to do the needful for farmers' welfare.

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